Version No. 1 Printing date 03/15/2022 Reviewed on 03/15/2022

1 Identification

- · Trade name: <u>UZIN Xtra</u>Guard Comp. A
- · Application of the substance / the mixture 3-Component Design Epoxy Mortar (Component A)
- · Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Manufacturer: UZIN UTZ AG Dieselstrasse 3 D-89079 Ulm Germany

Tel.: +49 (0)731 4097-0 Fax: +49 (0)731 4097-110

Supplier:

Uzin Utz North America, Inc. 14509 E. 33rd. Place, Unit G

Aurora, CO 80011 Phone: +720-374-4810 Toll-Free: +1 866-505-4810 Fax: +1 720-374-2113

· Information department:

Product safety department email: msds.info@uzin-utz.com

· Emergency telephone number:

For Chemical Emergency Spill Leak Fire Exposure or Accident Call CHEMTREC Day or Night: DOMESTIC NORTH AMERICA 800-424-9300

International, call +49 621 60 43 333

2 Hazard(s) identification

Classification of the substance or mixture



GHS09 Environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms





GHS09

- · Signal word Warning
- · Hazard-determining components of labeling:

Bisphenol-A-epoxy resin (average molecular weight \leq 700) Bisphenol-F-epoxy resin (average molecular weight \leq 700)

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Trade name: UZIN XtraGuard Comp. A

(Contd. of page 1)

1,3-bis(*2,3-epoxypropoxy*)*-2,2-dimethylpropane* alkyl C12-C14 glycidyl ether

· Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

· Precautionary statements

Avoid release to the environment.

Wear protective gloves / eye protection / face protection.

If on skin: Wash with plenty of soap and water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

- · Information pertaining to particular dangers for man and environment:
- · NFPA ratings (scale 0 4)



Health = 2Flammability = 1Reactivity = 0

· HMIS-ratings (scale 0 - 4)



2 Health = 2 1 Flammability = 1

· Other hazards

NFPA Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe.

NFPA is the National Fire Protection Association.

HMIS Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe.

HMIS®, the Hazardous Materials Identification System, is a registered mark of the National Paint and Coatings Association (NPCA).

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · **Description:** Mixture of the substances listed below with nonhazardous additions.

· Hazardous ingredients:		
CAS: 1675-54-3	Bisphenol-A-epoxy resin (average molecular weight ≤ 700) • Aquatic Chronic 2, H411; • Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; Aquatic Acute 2, H401	25-50%
CAS: 9003-36-5	Bisphenol-F-epoxy resin (average molecular weight ≤ 700) ♦ Aquatic Chronic 2, H411; ♦ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; Aquatic Acute 2, H401	25-50%
CAS: 17557-23-2	1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane Skin Irrit. 2, H315; Skin Sens. 1, H317; Flam. Liq. 4, H227	25-50%
CAS: 68609-97-2	alkyl C12-C14 glycidyl ether 🕠 Skin Irrit. 2, H315; Skin Sens. 1, H317	10-<20%

· Additional information:

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

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Trade name: UZIN XtraGuard Comp. A

(Contd. of page 2)

For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a doctor.

- · After swallowing: Do not induce vomiting; immediately call for medical help.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed Allergic reactions
- · Indication of any immediate medical attention and special treatment needed Also observe SDS of component B.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO₂ extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

- · Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Protective Action Criteria for Chemicals

PAGA	
· PAC-1:	
CAS: 1675-54-3 Bisphenol-A-epoxy resin (average molecular weight ≤ 700)	39 mg/m ³
· PAC-2:	·
CAS: 1675-54-3 Bisphenol-A-epoxy resin (average molecular weight ≤ 700)	430 mg/m³
· PAC-3:	
CAS: 1675-54-3 Bisphenol-A-epoxy resin (average molecular weight ≤ 700)	$2,600 \text{ mg/m}^3$
·	•

Trade name: UZIN XtraGuard Comp. A

(Contd. of page 3)

7 Handling and storage

- · Handling:
- Precautions for safe handling

Wear suitable protective clothing, gloves and eye/face protection.

Immediately remove all soiled and contaminated clothing.

Avoid contact with the eyes and skin.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

Protect from humidity and water.

Protect from frost.

· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing.

Avoid contact with the eyes and skin.

Wear suitable protective clothing, gloves and eye/face protection.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

- · Respiratory protection: Not necessary. Ensure that room is well-ventilated during processing.
- · Protection of hands:



Use gloves of stable material (e.g. Nitrile) - if necessary tricoted to improve the wearability.

· Material of gloves

Butyl rubber, BR

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.5 mm

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

At least 480 minutes.

(Contd. on page 5)

(Contd. of page 4)

Safety Data Sheet acc. to OSHA HCS

Trade name: UZIN XtraGuard Comp. A

· Eye protection:



Tightly sealed goggles or face protection

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

· pH-value:

Form: Fluid
Color: Yellowish

Odor: Weak, characteristicOdor threshold: Not determined.

· Change in condition

Melting point/Melting range:Undetermined.Boiling point/Boiling range:Undetermined.

• Flash point: >100 °C (>212 °F)

· Flammability (solid, gaseous): Not applicable.

• Ignition temperature: >200 °C (>392 °F)

· Decomposition temperature: Not determined.

· Auto igniting: Product is not selfigniting.

• Danger of explosion: Product does not present an explosion hazard.

Not determined.

· Explosion limits:

Lower:Not determined.Upper:Not determined.

· Vapor pressure: Not determined.

Density at 20 °C (68 °F): 1.11 g/cm³ (9.26 lbs/gal)

Relative density
 Vapor density
 Evaporation rate
 Not determined.
 Not determined.

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic at 20 °C (68 °F): ~180 mPas (Brookfield) **Kinematic:** Not determined.

• Other information No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions

May produce violent reactions with bases and numerous organic substances including alcohols and amines.

(Contd. on page 6)

Trade name: UZIN XtraGuard Comp. A

(Contd. of page 5)

Exothermic polymerization.

- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products:

Irritant gases/vapors

At elevated temperatures hazardous decomposition products such as carbon dioxide, carbon monoxide, smoke or nitric oxids may be evolved.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- Specific symptoms in biological assay:
- · Primary route(s) of entry: Inhalation, skin contact, eye contact, ingestion.
- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information: Carcinogenic.
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

CAS: 1675-54-3 Bisphenol-A-epoxy resin (average molecular weight ≤ 700)

3

· NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity:

CAS: 1675-54-3 Bisphenol-A-epoxy resin (average molecular weight ≤ 700)

EC50/48h 1.8 mg/l (Daphnia magna)

EC50/72h 11 mg/l (Scenedesmus capricornutum)

LC50/96h 2 mg/l (Piscis)

- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Do not allow product to reach ground water, water course or sewage system.

Toxic for aquatic organisms

Also poisonous for fish and plankton in water bodies.

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

(Contd. on page 7)

Trade name: UZIN XtraGuard Comp. A

· Other adverse effects No further relevant information available.

(Contd. of page 6)

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

The product contains materials that are harmful to the environment.

Do not allow product to reach ground water, water course or sewage system.

Mix both product components, allow to harden, then dispose of as construction waste.

Disposal should be in accordance with local, state or national legislation.

- · Uncleaned packagings:
- · Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

14 Transport information

· DOT · ADR, IMDG, IATA	Void UN3082
· UN proper shipping name · DOT · ADR	Void 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
·IMDG	N.O.S. (Epoxy resins) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resins), MARINE POLLUTANT
· IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resins)
· DOT · Class	Void

· IMDG, IATA



· Class 9 Miscellaneous dangerous substances and articles

· Label 9
 · DOT Void
 · IMDG, IATA III

· Environmental hazards:

· Marine pollutant: Yes

Symbol (fish and tree)
Special marking (ADR):
Special marking (IATA):
Symbol (fish and tree)
Symbol (fish and tree)

· Special precautions for user Warning: Miscellaneous dangerous substances and articles

· EMS Number: F-A,S-F · Stowage Category A

· Transport/Additional information: Not regulated as hazardous material according to the above

specifications.

· UN "Model Regulation": UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESINS), 9, III

US

Trade name: UZIN XtraGuard Comp. A

(Contd. of page 7)

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- · SARA (Superfund Amendments and Reauthorization Act)
- · EPCRA Section 302 (Extremely Hazardous Substances):

None of the ingredient is listed.

· SARA Title III Section 313 (Toxic Release Inventory - TRI):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

All components have the value ACTIVE.

· Hazardous Air Pollutants

None of the ingredients is listed.

- Proposition 65 (California)
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenicity categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms





GHS07 GHS09

- · Signal word Warning
- · Hazard-determining components of labeling:

Bisphenol-A-epoxy resin (average molecular weight ≤ 700)
Bisphenol-F-epoxy resin (average molecular weight ≤ 700)
1,3-bis(2,3-epoxypropoxy)-2,2-dimethylpropane

alkyl C12-C14 glycidyl ether

· Hazard statements

Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

Precautionary statements

Avoid release to the environment.

(Contd. on page 9)

(Contd. of page 8)

Safety Data Sheet acc. to OSHA HCS

Trade name: UZIN XtraGuard Comp. A

Wear protective gloves / eye protection / face protection.

If on skin: Wash with plenty of soap and water.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

If skin irritation or rash occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Contact:

Hyun-Ju Lee

Phone: +1 303-374-4810 Mobile: +1 302-258-4442

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flam. Liq. 4: Flammable liquids – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation - Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard - Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2

US

1 Identification

- · Trade name: UZIN XtraGuard Comp. B
- · Application of the substance / the mixture 3-Component Design Epoxy Mortar (Component B)
- Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Manufacturer: UZIN UTZ AG Dieselstrasse 3 D-89079 Ulm

Germany Tel.: +49 (0)731 4097-0 Fax: +49 (0)731 4097-110

Supplier:

Uzin Utz North America, Inc. 14509 E. 33rd. Place, Unit G

Aurora, CO 80011 Phone: +720-374-4810 Toll-Free: +1 866-505-4810 Fax: +1 720-374-2113

· Information department:

Product safety department email: msds.info@uzin-utz.com

· Emergency telephone number:

For Chemical Emergency Spill Leak Fire Exposure or Accident

Call CHEMTREC Day or Night: DOMESTIC NORTH AMERICA 800-424-9300

International, call +49 621 60 43 333

2 Hazard(s) identification

· Classification of the substance or mixture



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS09 Environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Sens. 1 H317 May cause an allergic skin reaction.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

(Contd. on page 2)

Trade name: UZIN XtraGuard Comp. B

(Contd. of page 1)

· Hazard pictograms



· Signal word Danger

· Hazard-determining components of labeling:

Fatty acids, talloil, reaction products with tetraethylene pentamine

m-phenylenebis(*methylamine*)

3-aminomethyl-3,5,5-trimethyl cyclohexylamine

Phenol, styrenated

N-(3-(trimethoxysilyl)propyl)ethylenediamine

· Hazard statements

Harmful if swallowed.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

· Precautionary statements

Avoid release to the environment.

Wear protective gloves / eye protection / face protection.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation or rash occurs: Get medical advice/attention.

- · Information pertaining to particular dangers for man and environment:
- · NFPA ratings (scale 0 4)



Health = 3 Flammability = 1Reactivity = 0

· HMIS-ratings (scale 0 - 4)



· Other hazards

NFPA Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe.

NFPA is the National Fire Protection Association.

HMIS Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe.

HMIS®, the Hazardous Materials Identification System, is a registered mark of the National Paint and Coatings Association (NPCA).

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · Description: Mixture of the substances listed below with nonhazardous additions.

(Contd. on page 3)

Trade name: UZIN XtraGuard Comp. B

	(Co	ntd. of page 2)
· Hazardous ingred	lients:	
CAS: 68953-36-6	Fatty acids, talloil, reaction products with tetraethylene pentamine	25-50%
	Skin Corr. 1B, H314; Eye Dam. 1, H318; 4 Aquatic Acute 1, H400; Aquatic Chronic 1, H410; 🔥 Skin Sens. 1, H317	
CAS: 1477-55-0	m-phenylenebis(methylamine)	25-50%
	Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Sens. 1, H317; Aquatic Acute 3, H402; Aquatic Chronic 3, H412	
CAS: 2855-13-2	3-aminomethyl-3,5,5-trimethylcyclohexylamine	20-<25%
	Skin Corr. 1B, H314; Eye Dam. 1, H318; () Acute Tox. 4, H302; Skin Sens. 1A, H317	
CAS: 61788-44-1	Phenol, styrenated	10-<20%
	Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317; Aquatic Acute 2, H401	
CAS: 1760-24-3	N-(3-(trimethoxysilyl)propyl)ethylenediamine	1-<3%
	📀 Eye Dam. 1, H318; 🗘 Skin Sens. 1, H317; STOT SE 3, H335	

· Additional information:

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets. For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- · Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a doctor.

- · After swallowing: Do not induce vomiting; immediately call for medical help.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed Allergic reactions
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO₂ extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

(Contd. on page 4)

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Trade name: UZIN XtraGuard Comp. B

(Contd. of page 3)

Inform respective authorities in case of seepage into water course or sewage system.

· Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· Protective Action Criteria for Chemicals

· PAC-1:

None of the ingredients is listed.

· PAC-2:

None of the ingredients is listed.

· PAC-3:

None of the ingredients is listed.

7 Handling and storage

- · Handling:
- · Precautions for safe handling

Wear suitable protective clothing, gloves and eye/face protection.

Immediately remove all soiled and contaminated clothing.

Avoid contact with the eyes and skin.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

Protect from frost.

· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

CAS: 1477-55-0 m-phenylenebis(methylamine)

REL Ceiling limit value: 0.1 mg/m³

Skin

TLV Ceiling limit value: 0.018 ppm

Skin

- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Immediately remove all soiled and contaminated clothing.

Avoid contact with the eyes and skin.

(Contd. on page 5)

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Trade name: UZIN XtraGuard Comp. B

(Contd. of page 4)

Wear suitable protective clothing, gloves and eye/face protection.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

- Respiratory protection: Not necessary. Ensure that room is well-ventilated during processing.
- · Protection of hands:



Use gloves of stable material (e.g. Nitrile) - if necessary tricoted to improve the wearability.

· Material of gloves

Butyl rubber, BR

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.5 mm

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

At least 480 minutes.

· Eye protection:



Tightly sealed goggles or face protection

9 Physical and chemical properties

Information on basic physical and chemical properties		
General Information		
· Appearance:		
Form:	Fluid	
Color:	Yellow	
· Odor:	Amine-like	
· Odor threshold:	Not determined.	
· pH-value at 20 °C (68 °F):	11	
· Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	>200 °C (>392 °F)	
· Flash point:	>100 °C (>212 °F)	
· Flammability (solid, gaseous):	Not applicable.	
· Decomposition temperature:	Not determined.	
· Auto igniting:	Product is not selfigniting.	
· Danger of explosion:	Product does not present an explosion hazard.	
· Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
· Vapor pressure:	Not determined.	
· Density at 20 °C (68 °F):	0.99 g/cm³ (8.26 lbs/gal)	
· Relative density	Not determined.	
· Vapor density	Not determined.	
· Evaporation rate	Not determined.	

(Contd. on page 6)

Not miscible or difficult to mix.

Trade name: UZIN XtraGuard Comp. B

· Solubility in / Miscibility with

(Contd. of page 5)

· Viscosity:

Dynamic at 20 °C (68 °F): ~40 mPas (Brookfield) **Kinematic:** Not determined.

· Partition coefficient (n-octanol/water): Not determined.

• Other information No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions Strong exothermic reaction with acids.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products:

Corrosive gases/vapors

At elevated temperatures hazardous decomposition products such as carbon dioxide, carbon monoxide, smoke or nitric oxids may be evolved.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

· LD/LC50 values that are relevant for classification:			
CAS: 1477	CAS: 1477-55-0 m-phenylenebis(methylamine)		
Oral	Oral LD50 930 mg/kg (rat)		
Dermal	LD50	3,100 mg/kg (rabbit)	
Inhalative	Inhalative LC50/4 h 1.34 mg/l (rat)		
CAS: 2855	CAS: 2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine		
Oral	Oral LD50 1,030 mg/kg (ATE)		
	1,030 mg/kg (rat) (OECD 401)		
Dermal	Dermal LD50 1,840 mg/kg (rabbit)		
Inhalative	Inhalative $ LC50/4 h > 5 \text{ mg/l (rat)}$		

- Specific symptoms in biological assay:
- · Primary route(s) of entry: Inhalation, skin contact, eye contact, ingestion.
- · Primary irritant effect:
- on the skin: Caustic effect on skin and mucous membranes.
- · on the eye: Strong caustic effect.
- · Sensitization: Sensitization possible through skin contact.
- · Additional toxicological information:
- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

(Contd. on page 7)

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(Contd. of page 6)

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Very toxic for fish
- · Additional ecological information:
- · General notes:

Do not allow product to reach ground water, water course or sewage system.

Very toxic for aquatic organisms

Also poisonous for fish and plankton in water bodies.

- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

The product contains materials that are harmful to the environment.

Do not allow product to reach ground water, water course or sewage system.

Mix both product components, allow to harden, then dispose of as construction waste.

Disposal should be in accordance with local, state or national legislation.

- · Uncleaned packagings:
- · Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

14 Transport information

· DOT, ADR, IMDG, IATA	UN2735

· UN proper shipping name

Polyamines, liquid, corrosive, n.o.s. (Fatty acids, talloil, reaction products with

tetraethylene pentamine, m-phenylenebis(methylamine))

· ADR 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Fatty acids, talloil,

reaction products with tetraethylene pentamine, m-phenylenebis(methylamine)),

ENVIRONMENTALLY HAZARDOUS

• IMDG POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Fatty acids, talloil, reaction

products with tetraethylene pentamine, m-phenylenebis(methylamine)),

MARINE POLLUTANT

(Contd. on page 8)

Trade name: UZIN XtraGuard Comp. B

(Contd. of page 7)

· IATA POLYAMINES, LIQUID, CORROSIVE, N.O.S. (Fatty acids, talloil, reaction

products with tetraethylene pentamine, m-phenylenebis(methylamine))

 $\cdot DOT$



· Class 8 Corrosive substances

· Label

 \cdot IMDG





· Class 8 Corrosive substances

· Label

 \cdot IATA



· Class 8 Corrosive substances

• **Label** 8 • **DOT, IMDG, IATA** II

• Environmental hazards: Product contains environmentally hazardous substances: Fatty acids, talloil,

reaction products with tetraethylene pentamine

· Marine pollutant: Yes

Symbol (fish and tree)

· Special marking (ADR): Symbol (fish and tree)

· Special precautions for user Warning: Corrosive substances

• EMS Number: F-A,S-B
• Segregation groups Alkalis
• Stowage Category A

• Segregation Code SG35 Stow "separated from" SGG1-acids

· UN "Model Regulation": UN 2735 POLYAMINES, LIQUID, CORROSIVE, N.O.S. (FATTY ACIDS,

TALLOIL, REACTION PRODUCTS WITH TETRAETHYLENE PENTAMINE, M-PHENYLENEBIS (METHYLAMINE)), 8, II, ENVIRONMENTALLY

HAZARDOUS

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA (Superfund Amendments and Reauthorization Act)
- EPCRA Section 302 (Extremely Hazardous Substances):

None of the ingredient is listed.

· SARA Title III Section 313 (Toxic Release Inventory - TRI):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

All components have the value ACTIVE.

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Trade name: UZIN XtraGuard Comp. B

(Contd. of page 8)

· Hazardous Air Pollutants

None of the ingredients is listed.

Proposition 65 (California)

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenicity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms







GHS05

05 GHS07 GHS

· Signal word Danger

· Hazard-determining components of labeling:

Fatty acids, talloil, reaction products with tetraethylene pentamine

m-phenylenebis(*methylamine*)

3-aminomethyl-3,5,5-trimethylcyclohexylamine

Phenol, styrenated

N-(3-(trimethoxysilyl)propyl)ethylenediamine

· Hazard statements

Harmful if swallowed.

Causes severe skin burns and eye damage.

May cause an allergic skin reaction.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

· Precautionary statements

Avoid release to the environment.

Wear protective gloves / eye protection / face protection.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If skin irritation or rash occurs: Get medical advice/attention.

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16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Contact:

Hyun-Ju Lee

Phone: +1 303-374-4810 Mobile: +1 302-258-4442

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Tox. 4: Acute toxicity - Category 4

Skin Corr. 1B: Skin corrosion/irritation - Category 1B

Skin Irrit. 2: Skin corrosion/irritation - Category 2

Eye Dam. 1: Serious eye damage/eye irritation - Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1A: Skin sensitisation – Category 1A

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1

Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard - Category 2

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard - Category 3

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1 Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard - Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard - Category 3

1 Identification

- · Trade name: UZIN XtraGuard Comp. C
- · Application of the substance / the mixture 3-Component Design Epoxy Mortar (Component C)
- Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Manufacturer: UZIN UTZ AG Dieselstrasse 3 D-89079 Ulm Germany

Tel.: +49 (0)731 4097-0 *Fax*: +49 (0)731 4097-110

Supplier:

Uzin Utz North America, Inc. 14509 E. 33rd. Place, Unit G Aurora, CO 80011

Phone: +720-374-4810 Toll-Free: +1 866-505-4810 Fax: +1 720-374-2113

· Information department:

Product safety department email: msds.info@uzin-utz.com

· Emergency telephone number:

For Chemical Emergency Spill Leak Fire Exposure or Accident

Call CHEMTREC Day or Night: DOMESTIC NORTH AMERICA 800-424-9300

International, call +49 621 60 43 333

2 Hazard(s) identification

· Classification of the substance or mixture



GHS08 Health hazard

Carc. 1A H350 May cause cancer. Route of exposure: Inhalation.

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure.

- · Label elements
- · GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS08

- · Signal word Danger
- · Hazard-determining components of labeling:

Quartz (crystalline silica)

Titanium dioxide

· Hazard statements

May cause cancer. Route of exposure: Inhalation.

Causes damage to organs through prolonged or repeated exposure.

· Precautionary statements

Do not handle until all safety precautions have been read and understood.

Wear protective gloves / eye protection.

(Contd. on page 2)

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(Contd. of page 1)

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Information pertaining to particular dangers for man and environment:
- · NFPA ratings (scale 0 4)



Health = 1Flammability = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



*0 *Health* = *0 Flammability = 0REACTIVITY 0 Reactivity = 0

· Other hazards

NFPA Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe.

NFPA is the National Fire Protection Association.

HMIS Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe.

HMIS®, the Hazardous Materials Identification System, is a registered mark of the National Paint and Coatings Association (NPCA).

- * Chronic health effect possible inhalation of silica dust may cause lung injury/disease (silicosis). Take appropriate measures to avoid breathing dust. See sections 3, 8 and 11.
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- · **Description:** 3-Component Design Epoxy Mortar (Component C)

Hazarda	านร in	gredients:

11uguruous ingreuienis.		
CAS: 14808-60-7 Quartz (crystalline silica)	🕸 Carc. 1A, H350; STOT RE 1, H372	25-50%
CAS: 13463-67-7 Titanium dioxide	& Carc. 2, H351	5-<10%

· Additional information:

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets.

The amount of respirable cristalline silica is less than 0.1 %.

For the wording of the listed hazard phrases refer to section 16.

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. Call a doctor.

- · After swallowing: Do not induce vomiting; immediately call for medical help.
- · Information for doctor:
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

Also observe the safety data sheet of component A.

(Contd. on page 3)

Trade name: UZIN XtraGuard Comp. C

(Contd. of page 2)

Also observe SDS of component B.

5 Fire-fighting measures

- Extinguishing media
- · Suitable extinguishing agents:
- CO₂ extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Wear dust mask.
- Environmental precautions: Do not allow to enter sewers/surface or ground water.
- · Methods and material for containment and cleaning up: Pick up mechanically.
- · Reference to other sections

No dangerous substances are released.

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· Protective Action Criteria for Chemicals

J		
· PAC-1:		
CAS: 14808-60-7 Quartz (crysto	alline silica)	0.075 mg/m^3
CAS: 13463-67-7 Titanium diox	cide	30 mg/m³
· PAC-2:		
CAS: 14808-60-7 Quartz (crysto	alline silica)	33 mg/m ³
CAS: 13463-67-7 Titanium diox	cide	330 mg/m^3
· PAC-3:		
CAS: 14808-60-7 Quartz (crysto		200 mg/m^3
CAS: 13463-67-7 Titanium diox	cide	$2,000 \text{ mg/m}^3$

7 Handling and storage

- · Handling:
- Precautions for safe handling

Prevent formation of dust.

Avoid contact with the eyes and skin.

Wash hands before breaks and at the end of work.

- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- Information about storage in one common storage facility: Not required.
- Further information about storage conditions:

Store in dry conditions.

Protect from humidity and water.

· Specific end use(s) No further relevant information available.

US

Trade name: UZIN XtraGuard Comp. C

(Contd. of page 3)

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters

· Components with limit values that require monitoring at the workplace:

CAS: 14808-60-7 Quartz (crystalline silica)

PEL Long-term value: 0.05* mg/m³

*resp. dust; 30mg/m3/%SiO2+2

REL Long-term value: 0.05* mg/m³

*respirable dust; See Pocket Guide App. A

TLV Long-term value: 0.025* mg/m³ *respirable particulate matter, A2

CAS: 13463-67-7 Titanium dioxide

PEL Long-term value: 15* mg/m³

*total dust

REL See Pocket Guide App. A

TLV Long-term value: (10) NIC-0.2* NIC-2.5** mg/m³ NIC: resp. fraction, *nanoscale, **finescale, A3

- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Avoid contact with the eyes and skin.

Also observe the safety data sheet of component A.

Also observe the SDS of component B.

Wash hands before breaks and at the end of work.

· Respiratory protection:

Not required.

When mixing wear suitable NIOSH-approved dust respirator.

Protection of hands:



Use gloves of stable material (e.g. Nitrile) - if necessary tricoted to improve the wearability.

· Material of gloves

Butyl rubber, BR

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.5 mm

· Penetration time of glove material

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Safety glasses

- US

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(Contd. of page 4)

Information on basic physical and General Information	chemical properties
Appearance:	
Form:	Solid
Color:	White
Odor:	Odorless
Odor threshold:	Not determined.
pH-value at 20 °C (68 °F):	7
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	Not applicable.
Flammability (solid, gaseous):	Not determined.
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapor pressure:	Not applicable.
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not applicable.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
Water:	Insoluble.
Partition coefficient (n-octanol/wat	er): Not determined.
Viscosity:	
Dynamic: Kinematic:	Not applicable.
	Not applicable.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

US

Trade name: UZIN XtraGuard Comp. C

(Contd. of page 5)

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Specific symptoms in biological assay:
- · Primary route(s) of entry: Inhalation, skin contact, eye contact, ingestion.
- Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritant effect.
- · Sensitization: No sensitizing effects known.
- · Subacute to chronic toxicity:

The amount of respirable cristalline silica is less than 0.1 %.

Respirable crystalline silica (quartz) may cause a severe lung desease named silicosis. Symptoms of silicosis may be a shortness of breath, fever or cough. Silicosis is reported to increase the risk of carcinogenicity caused by continuous inhalation of respirable crystalline silica. Though the product itself contains less than 0.1% of respirable crystalline silica, respirable silica may be generated from working procedures such as grinding e.g. In general, inhalation of silica dust should be avoided. Therefore, for your own safety wear a suitable NIOSH-approved respirator in all occasions when handling of the product generates dust.

- · Additional toxicological information:
- · Carcinogenic categories

· IARC (International Agency for Research on Cancer)		
CAS: 14808-60-7 Quartz (crystalline silica)	1	
CAS: 13463-67-7 Titanium dioxide	2B	
· NTP (National Toxicology Program)		
CAS: 14808-60-7 Quartz (crystalline silica)	K	
· OSHA-Ca (Occupational Safety & Health Administration)		
None of the ingredients is listed.		

· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction) Carc. 1A

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Do not allow product to reach ground water, water course or sewage system.
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB**: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- Recommendation:

Do not allow product to reach sewage system.

Disposal should be in accordance with local, state or national legislation.

(Contd. on page 7)

Trade name: UZIN XtraGuard Comp. C

(Contd. of page 6)

· Uncleaned packagings:

· Recommendation: Empty paper packaging is recyclable.

14 Transport information

· DOT, ADR, ADN, IMDG, IATA Void

· UN proper shipping name

· DOT, ADR, ADN, IMDG, IATA Void

· DOT, ADN, IMDG, IATA

· Class Void · DOT, IMDG, IATA Void

· Environmental hazards:

· Marine pollutant: No

· Special precautions for user Not applicable.

· Transport/Additional information: Not regulated as hazardous material according to the above

specifications.

· UN "Model Regulation": Void

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA (Superfund Amendments and Reauthorization Act)
- · EPCRA Section 302 (Extremely Hazardous Substances):

None of the ingredient is listed.

· SARA Title III Section 313 (Toxic Release Inventory - TRI):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

All components have the value ACTIVE.

· Hazardous Air Pollutants

None of the ingredients is listed.

- · Proposition 65 (California)
- · Chemicals known to cause cancer:

Titanium dioxide (airborne, unbound particles of respirable size) is classified as a substance known to the State of California to be a carcinogen.

CAS: 14808-60-7 Quartz (crystalline silica)

CAS: 13463-67-7 Titanium dioxide

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenicity categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

(Contd. on page 8)

Trade name: UZIN XtraGuard Comp. C

(Contd. of page 7)

		(Conta. or page 7)
· TLV (Threshold Limit Value)		
CAS: 14808-60-7	Quartz (crystalline silica)	A2
CAS: 13463-67-7	Titanium dioxide	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
CAS: 14808-60-7	Quartz (crystalline silica)	
CAS: 13463-67-7	Titanium dioxide	

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



· Signal word Danger

· Hazard-determining components of labeling:

Quartz (crystalline silica)

Titanium dioxide

· Hazard statements

May cause cancer. Route of exposure: Inhalation.

Causes damage to organs through prolonged or repeated exposure.

· Precautionary statements

Do not handle until all safety precautions have been read and understood.

Wear protective gloves / eye protection.

Dispose of contents/container in accordance with local/regional/national/international regulations.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Contact:

Hyun-Ju Lee

Phone: +1 303-374-4810 Mobile: +1 302-258-4442

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Carc. 1A: Carcinogenicity - Category 1A

Carc. 2: Carcinogenicity – Category 2

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1